

AMENDMENTS TO THE CLAIMS

Listing of Claims

1. (Currently amended) A hydrokinetic torque converter, comprising:
a housing rotatable about a predetermined axis; a friction lining associated with said housing and shaped as a ring bounded by an inner circular border and an outer circular border; a pump rotatable by said housing about said axis; a turbine rotatable in said housing about said axis by and relative to said pump; means for rotating said housing; an output element rotatable about said axis and arranged to receive torque from said turbine; a fluid-operated bypass clutch arranged to transmit variable torque between said housing and said output element independently of said turbine, said clutch including a first part rotatable with said housing, a second part rotatable with said output element, and friction generating means operable to transmit torque between said parts with and without slip with attendant generation of friction heat during operation with slip; first and second plenum chambers containing bodies of hydraulic fluid at variable pressure with the provision for fluid flow between said chambers past said friction generating means, wherein said housing includes a cooling surface which engages said clutch and includes radially directed grooves configured in the manner of rays which terminate outside an outer radial border and originate from an inner circle radially inside an said inner radial circular border and which terminate at an outer circle radially outside said outer circular border of a friction lining associated with said housing.

1 2. (Original) The torque converter of claim 1, further comprising
2 torsional vibration damping means operating between said first part and at least
3 one of said second part, said turbine and said output element.

1 3. (Original) The torque converter of claim 1, further comprising a
2 stator provided in said housing intermediate said pump and said turbine.

Claims 4-120 (Canceled)

121. (Previously presented) A method of cooling an engageable and disengageable bypass clutch which is installed in the rotary housing of a hydrokinetic torque converter and has coaxial rotary driving and driven components which frictionally engage each other when the clutch is at least partly engaged, such partial engagement involving a slip of said components relative to each other, comprising the steps of: providing in the housing first and second plenum chambers and maintaining therein bodies of hydraulic fluid arranged to at least partly engage the clutch in response to the establishment of a pressure differential between said bodies; establishing at least one path for the flow of fluid between said chambers by way of the clutch, at least in the partly engaged condition of the clutch; and actively regulating the flow of fluid along the at least one path in dependency upon friction torque between friction surfaces of said driving and driven components.

1 122. (Previously presented) The method of claim 121, wherein said
2 regulating step includes increasing the rate of fluid flow along the at least one
3 path when the clutch operates with slip and reducing said rate of fluid flow when
4 the clutch operates without slip.

Claims 123-127 (canceled)

128. (Currently amended) A hydrokinetic The torque converter of of
claim 1, comprising: a housing rotatable about a predetermined axis; a pump
rotatable by said housing about said axis; a turbine rotatable in said housing
about said axis by and relative to said pump; means for rotating said housing; an
output element rotatable about said axis and arranged to receive torque from
said turbine; a fluid-operated bypass clutch arranged to transmit variable torque
between said housing and said output element independently of said turbine;
said clutch including a first part rotatable with said housing, a second part
rotatable with said output element, and friction generating means operable to
transmit torque between said parts with and without slip with attendant
generation of friction heat during operation with slip; first and second plenum
chambers containing bodies of hydraulic fluid at variable pressure with the
provision for fluid flow between said chambers past said friction generating
means, wherein said housing includes a cooling surface which engages said
clutch and includes wherein said radially directed grooves which are imprinted

16 into said surface and which terminate outside an outer radial border and inside
17 an inner radial border of a friction lining associated with said housing.

1 129. (Previously presented) The torque converter of claim 128,
2 further comprising torsional vibration damping means operating between said first
3 part and at least one of said second part, said turbine and said output element.

1 130. (Previously presented) The torque converter of claim 128,
2 further comprising a stator provided in said housing intermediate said pump and
3 said turbine.